

DOCUMENT RESUME

ED 397 218

CE 066 712

TITLE Pennsylvania Blue Shield Job Linked Skills Program. Teacher's Manual [and] Technical Manual.

INSTITUTION Pennsylvania Blue Shield, Camp Hill.; Pennsylvania State Univ., University Park. Inst. for the Study of Adult Literacy.

SPONS AGENCY Office of Vocational and Adult Education (ED), Washington, DC. National Workplace Literacy Program.

PUB DATE 93

CONTRACT V198A20132-92

NOTE 8lp.; For "Final Performance Report," on this project, see CE 066 711.

AVAILABLE FROM Institute for the Study of Adult Literacy, 204 Calder Way, Suite 209, University Park, PA 16801-4756.

PUB TYPE Guides - Classroom Use - Teaching Guides (For Teacher) (052)

EDRS PRICE MF01/PC04 Plus Postage.

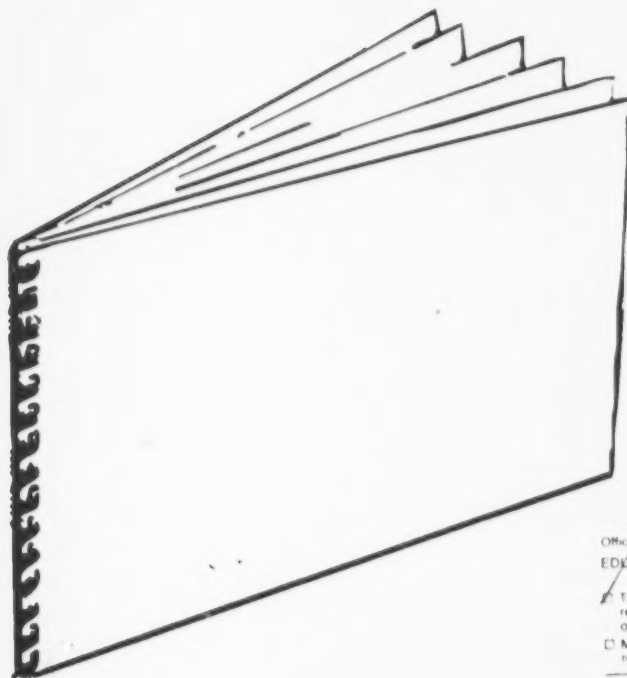
DESCRIPTORS Adult Basic Education; Adult Literacy; Basic Skills; *Computer Assisted Instruction; Computer Simulation; Courseware; *Health Insurance; Inplant Programs; *Insurance Occupations; Job Skills; Job Training; Labor Force Development; *Literacy Education; Medical Vocabulary; Reading Skills; Teaching Guides; Workplace Literacy; Writing Skills

IDENTIFIERS *Pennsylvania Blue Shield; Workplace Literacy

ABSTRACT

Two closely related publications from the same project, a Teacher's Manual" and a "Technical Manual", are combined here. These manuals are intended to accompany a work force literacy course designed to meet the basic skills needs of midliterate adults employed or preparing for employment in the health insurance industry. Introductory materials: define functional context education; describe key features of the program, including its simulation approach, learners' personalized individual Learner Data Disks, and bookmarking; and detail how to use the program. Descriptions follow of the five modules in the program. Module 1 teaches learners how to use the computer; each learner must complete this module before any others. Modules 2-5 may be completed in any order. They teach basic skills required for entry-level jobs in the health insurance industry: medical terminology, reading claims forms, clear writing, and using manuals. The keys used in the module and the activities are described for each module. The technical manual consists of two chapters. Chapter 1 describes IBM system requirements, Macintosh system requirements, and installation procedures for IBM and Mac. A minitutorial walks the user through the courseware. It helps the user get started using the courseware and introduces key concepts at strategic points. Chapter 2 covers the control panel, using the mouse, and using learner data. Three appendices include a computer terms glossary, information on formatting and copying floppy disks, and an Institute for the Study of Adult Literacy (ISAL) computer bug report form. (YLB)

Pennsylvania Blue Shield Job Linked Skills Program Teacher's Manual



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INTRODUCTION

Welcome to *Pennsylvania Blue Shield Job Linked Skills Program*! This is a workforce literacy course designed to meet the basic skills needs of mid-literate adults employed or preparing for employment in the health insurance industry. The Institute for the Study of Adult Literacy at Penn State developed the curriculum and courseware for Pennsylvania Blue Shield in Camp Hill, Pennsylvania with its instructional partner, Tri-County Opportunities Industrialization Center of Harrisburg, Pennsylvania. The project was funded by the U.S. Department of Education, National Workplace Literacy Grants Program.

Pennsylvania Blue Shield Job Linked Skills Program is divided into several modules. Module 1 teaches learners how to use the computer; each learner using *Pennsylvania Blue Shield Job Linked Skills Program* must complete this module before any others. Modules 2 through 5 teach basic skills required for entry-level jobs in the health insurance industry.

Functional Context Education

Pennsylvania Blue Shield Job Linked Skills Program uses a functional context approach, embedding instruction in basic skills in a relevant context. In *Pennsylvania Blue Shield Job Linked Skills Program*, instruction focuses directly on basic skills needed to complete tasks on the job. The instructional program uses tasks, materials, and equipment similar to those that the learners will use in their jobs after training. Research shows that the functional context approach is an effective and highly motivating approach to education for adults and adolescents.

Three fundamental principles of functional context education are especially relevant in this software:

- **Prior Knowledge.** Functional context education builds on learners' prior knowledge. This helps them learn new information in a meaningful way.
- **Motivation.** Learners learn basic skills more rapidly when training focuses on a vocational context. This increases motivation as learners see the relevance and end result of the program.
- **Transfer.** Functional context education uses real job materials to facilitate transfer to actual job applications.

To determine basic skills needs of entry-level employees in the health insurance industry, staff of the Institute for the Study of Adult Literacy at Penn State performed basic

skills task analyses. A basic skills task analysis identifies the reading, writing, math, critical thinking, and problem-solving skills needed to perform tasks on the job. It is similar to a job task analysis in that both analyze what an employee does on the job. However, while a job task analysis identifies and analyzes the specific job tasks, a literacy task analysis focuses on the literacy skills required to complete the task. To perform these analyses, Institute staff visited job sites, interviewed supervisors and workers, and reviewed forms and manuals.

KEY FEATURES OF THE PROGRAM

Pennsylvania Blue Shield Job Linked Skills Program takes a simulation approach to instruction. Each scenario, or sequence of tasks, takes learners directly into the daily work environment, a "You are there" simulation in which learners become workers. They arrive at work and receive instructions concerning projects they need to complete. To complete tasks correctly, learners use reading, writing, critical thinking, and problem-solving skills. If learners cannot read the material or perform necessary activities, they can ask for help and *Pennsylvania Blue Shield Job Linked Skills Program* will provide specific instruction.

Learners have personalized individual Learner Data Disks that record their work throughout *Pennsylvania Blue Shield Job Linked Skills Program*. Each Learner Data Disk is personalized when the learner first uses *Pennsylvania Blue Shield Job Linked Skills Program*. When learners insert the Learner Data Disk into the floppy disk drive the first time, the following screen appears:

Learner Sign-in Panel

(If you have more than 20 letters in your name, please abbreviate.)

Please type your first name,
then press the Return key. ▶| _____

Press the delete key to fix a mistake.

Learner information can be edited to correct an error in the name. The disk can be erased at this point to prepare it for a new learner.

If you want to edit learner information,
type **E to Edit** .

If you want to erase the Learner Data Disk
and use it for a new learner,
type **H for Erase** .

If you want to eject the Learner Data Disk
and use a different one,
type **T to Try Again** .

A **bookmarking** feature gives learners the option of returning to the point at which they quit.

Do you want to Pick up where you left off last time, or
Go to the Main Menu? Type a **P** to Pick up where you
left off, or a **G** to Go to the Main Menu.

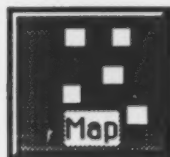
Pick Up Where I Left Off

Go to the Main Menu

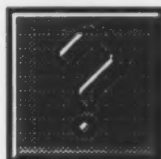
HOW TO USE THIS PROGRAM

Learner Controls

Buttons on the bottom of each screen control the program.

Map

After clicking on the **Map** button, learners see a list of all modules they have entered. The list also tells the learner the date they used the modules and the length of time spent on each module.

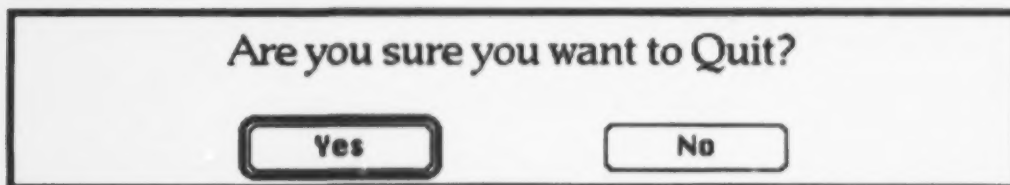
Help

When learners click on the **Help** button, they receive a brief explanation of what they should do on that screen.

Exit the Program

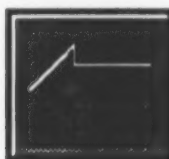
The **Exit the Program** button allows learners to quit the program at any time.

After clicking on the **Exit the Program** button, learners see this message:



Learners cannot quit by mistake. When they answer No, the message disappears and learners continue with the program. When learners answer Yes, *Pennsylvania Blue Shield Job Linked Skills Program* stops. When they return to the program, learners can go to the exact spot where they left off, if desired. This **bookmarking** feature means learners do not have to remember where they were when they quit.

Previous Screen



If learners want to see a screen again in an instructional sequence they can click on the **Previous Screen** button. This causes *Pennsylvania Blue Shield Job Linked Skills Program* to back up one screen.

Starting the Program

When learners begin the program, they see the Main Menu. From there they can go to any module.

Module 1: Introduction to Computers

This is the starting place for anyone using *Pennsylvania Blue Shield Job Linked Skills Program*. It explains how the program works and prepares learners to use the modules that follow.

Introduction to Computers contains five units of instruction. From the menu, learners can choose any of the units of instruction or can return to the Main Menu. Choices are made by either typing the appropriate number or by clicking on the desired unit with the mouse.

H=Help

Module 1: How To Use This Program Menu

Please make a choice:

- ☐ 1. Computer Use
- ☐ 2. Keyboard
- ☐ 3. Mouse
- ☐ 4. Using This Courseware
- ☐ 5. Answer Formats
- 6. Return to the Main Menu



Type the number of your choice.

Type M to go to the Main Menu.

Computer Use introduces learners to the parts of the computer: the monitor, disk drive, keyboard, and printer. This unit also explains what a cursor is.

Keyboard familiarizes learners with a computer keyboard. The module teaches how to use:

- the shift key
- the return or enter key
- the backspace or delete key
- the space bar.

Learners become more comfortable with the keyboard by practicing what they have learned.

• **Mouse** introduces the mouse, and shows the proper way to hold and use it to click on and drag. Learners must use the mouse extensively in *Pennsylvania Blue Shield Job Linked Skills Program*.

Using this Courseware introduces and explains the basic concepts of the program. Learners try various routines by using the buttons at the bottom of each screen.

Answer Formats explains the four methods of answering questions: clicking on, dragging, typing, and multiple choice.

After finishing Module 1, learners choose the next module they want to complete.

Module 2: Medical Terminology

Module 2 teaches medical terms that individuals working for health insurance companies will see on the job. This module teaches through a story of Mary Consola and her friend, Thelma. Thelma, a licensed practical nurse, helps Mary by teaching her the "word parts" that combine to form medical terms. As the story progresses, Mary becomes more confident and goes to school to become a licensed practical nurse herself. Learners become familiar with the medical terms by reading the story and by using a series of activities developed to teach each word.

Module 2 Buttons

Learners see several new buttons in this module.

Page Through



Learners **Page Through** the story by using the arrows.

End Story

Learners click on **End Story** button when they have finished reading the story. This sends them directly to the activities.

Look At



By clicking on the **Look At** button and then on a bolded word, learners see the meaning of the word and its component parts.

Story

After looking at the word parts, learners return to the story by clicking on the **Story** button.

More

If learners click on the **More** button, they have the opportunity to work on the activities for that one word.

Return



In Module 2, the **Return** button sends learners back to the Module 2 Menu.

Module 2 Activities

At the end of every story, learners see a list of all new words presented in that story. The component parts of each word are shown along with the word's definition. When learners are finished reading the list, they are instructed to click on the **End Story** button. This takes learners immediately into the activities. The following are examples of activities.

In sentence completion, learners choose the correct word to complete a sentence:

Aspirin is an _____ medication.

- A. anti-aircraft
- B. antiarthritic
- C. Antarctic

Click on the correct answer.

Next, learners must choose the sentence that uses the word correctly.

Which sentence uses antiarthritic correctly?

- A. There is no perfect antiarthritic at the present time.**
- B. The admiral explored the antiarthritic.**

Click on the correct sentence.

The next exercise requires learners to type the word correctly in a sentence.

Wordbox

anti-aircraft
antiarthritic
Antarctic

Aspirin is an _____ medication.

Type the correct word and press Enter.

The next activity emphasizes the fact that medical words are made up of component parts. Learners have to choose the word parts to build a word.

Word Box - Part 1	Word Box - Part 2
hyper anti cardio spondyl ost	arthritic algia algia therapy dontial
anything used to relieve arthritis Make the correct word. Click on the two correct word parts. Click on Done after you make the correct word. Done	

Exercises exist for every medical term presented in Module 2.

Module 3: Reading Claims Forms

This module teaches learners to read medical claims forms. Four different types of forms are presented to learners.

Module 3 Buttons

Learners see new buttons in this module.

Dictionary



If learners need help understanding words contained in Module 3, they can click on the **Dictionary** button. The Dictionary contains many words used in this module. It shows a list of words, ten at a time. Learners can either scroll through the list or type the word they want to see. The word is defined and used in a sentence.

Learn About



The **Learn About** button moves learners into an instructional strand. Learners can choose to see the instruction at any time. Instruction is focused directly on the current material. Learners are not required to take instruction during the module. However, if they make mistakes during the module, they will automatically proceed into instruction at the end of the module.

Look At



In this module, learners click on the **Look At** button to see one of the forms that are in the In Box. Learners click on the **Look At** button first and then click on the form they want to see. The form will appear on the screen.

Check My Work



Learners use the **Check My Work** button when they have completed all questions for each form. Then they receive a manager's report that lists everything they did correctly and all the mistakes they made answering questions about the form. If any mistakes were made, learners automatically are sent to instruction.

Help



The **Help** button works in the same way in Module 3 as it did in Module 2. When learners click on the **Help** button, they receive a brief explanation of what they should do on the screen they are on.

Menu



Learners click on the **Menu** button to return to the Main Menu.



They can also go to instruction by clicking on the button with the words **Learn About**.

Module 3 Activities

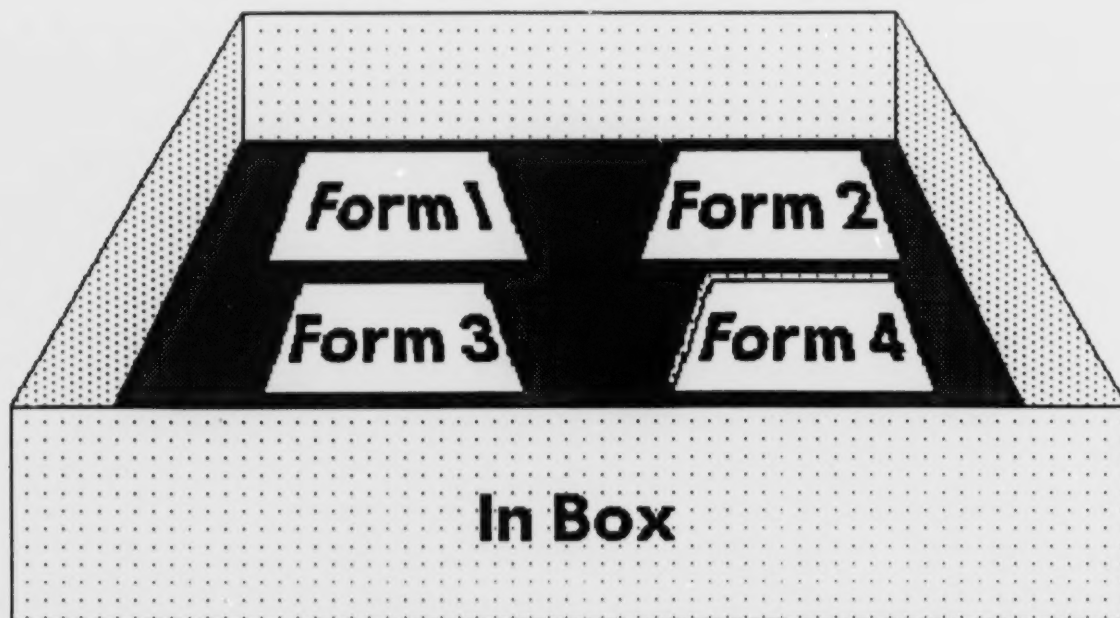
When learners enter Module 3 they see this:



You have just come into work.
Today you will have to read different
types of forms. You will have to find all
the information you need on these forms.
Look at the forms in your In Box
and answer the questions about them.

OK

After clicking on OK, learners see their In Box containing four different claims forms.



They can work on any of the four forms by clicking on the **Look At** button and then clicking on whatever form they choose.

The four forms are representative of four different forms health insurance employees might see on the job. They are too long for the entire form to fit on the screen at once. Learners can either scroll through the form by using the arrows or they can click on one of the rectangles to the right of the form to go to that part of the form.

PATIENT & INSURED INFORMATION		
1. PATIENT'S NAME Carol Yard	2. PATIENT'S DATE OF BIRTH 12/23/43	3. INSURED'S NAME Fred J. Yard
4. PATIENT'S ADDRESS 422 Concord Street Boke, PA 19055	5. PATIENT'S SEX Female	6. INSURED'S ID 122-30-7442
	7. RELATIONSHIP TO INSURED Spouse	8. INSURED'S GROUP NUMBER

Many questions learners answer require that they look at more than one field. For example, one question is:

How did Carol Yard get hurt?

- a. by falling down at work
 - b. by falling down the stairs
 - c. by falling down, not at work
-

To answer this question correctly, learners must look at two different fields on the form. First, they look at the field containing the question, "Was injury related to work?" The answer to this question on the form is "No." Next, they must look at the diagnosis which is "Slipping or falling, same level." By looking at the two fields, learners see that Carol Yard fell down, but not at work. They also learn that she did not fall down steps.

Learners who need help enter the instructional strand by clicking on the **Learn About** button.

Learners can choose "Introduction to Forms," "Introduction to Medical Forms," or they can learn about the particular form they are working on (Form 1, 2, 3, or 4).

"Introduction to Forms" is a lesson on forms in general. It explains what titles, labels, and fields are. It also tells learners that sometimes they will have to look at more than one field to find an answer.

"Introduction to Medical Forms" teaches specifically about medical claims forms. The lesson teaches learners that forms may look quite different, yet still give the same information. The fields might be in different places, or the words used might vary, but they contain the same information nevertheless.

The next piece of instruction teaches learners about the forms. Each form has a separate instructional sequence. The form is described field by field. Each field is explained to learners.

Module 4: Clear Writing

This module addresses the grammar and writing needs of learners. Learners choose from two units: "Choosing Better Writing" or "Expressing Yourself in Writing."

Module 4 Buttons

The buttons used in Module 4 are the same as those used in Module 3. Please refer to the section on Module 3 for more information.

Module 4 Activities

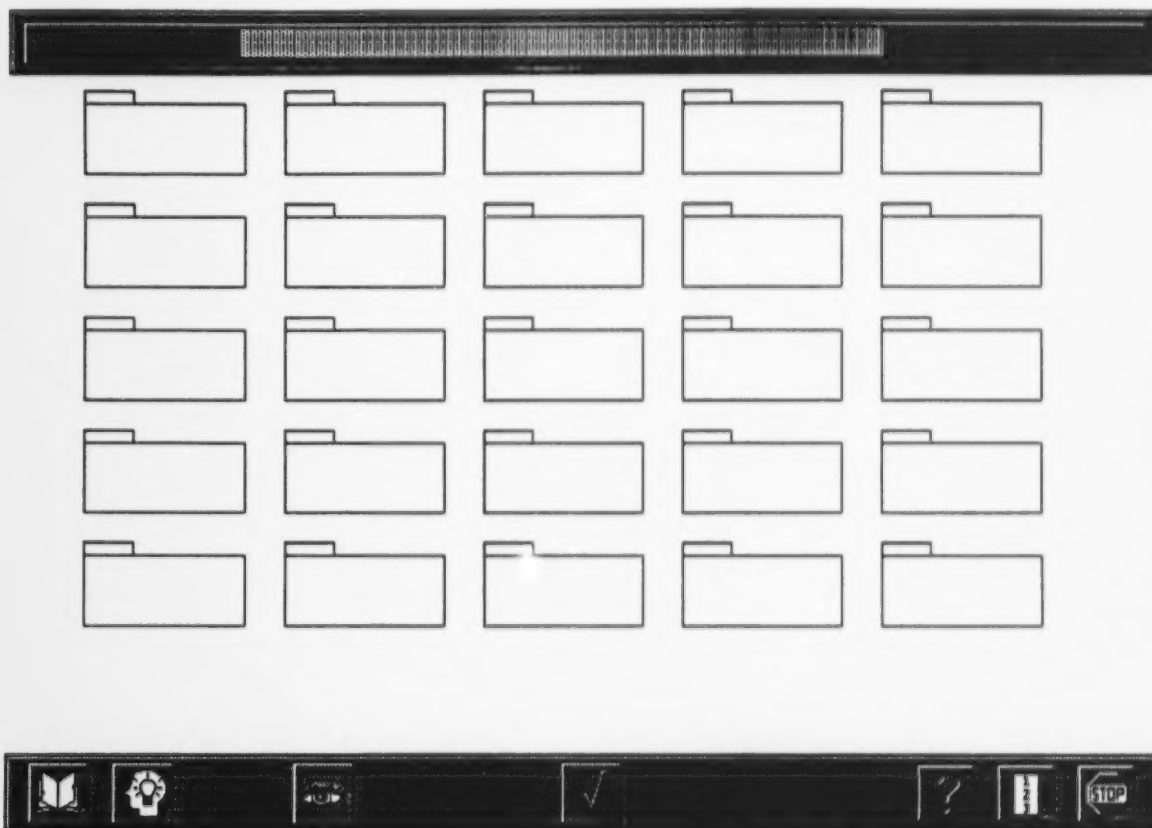
Choosing Better Writing

In "Choosing Better Writing," learners pick which of two short writings is better. When learners enter this unit, they see a desk with a note on it.



Learners click on the **Look At** button and the note which then appears on the screen. The note informs learners that they have been appointed to a "Better Writing Committee." They are to attend a meeting. At the meeting, learners are told that they have to review several writing samples and decide which is better. They also have to state why the writing sample they have chosen is better.

The writing samples are presented as a series of file folders. Learners use the **Look At** button to look at the folders. They can choose folders in any order.



Learners see two writing samples. One is written better than the other. Sometimes there is a grammar error in one sample; at other times, the poorer writing sample is badly constructed.

Look at file #1

Charles H. Sopopolus
1755 N. Hamilton Avenue
Wingate Park, PA 15981

Dear Mr. Sopopolus:

Your claim for payment for medical equipment to the provider, Western Medical Company, is denied because you have not conformed to the contract in filing a Predetermination of Benefits Form #2139.

Sincerely,
Sarah Burnham

Charles H. Sopopolus
1755 N. Hamilton Avenue
Wingate Park, PA 15981

Dear Mr. Sopopolus:

Your health insurance policy cannot pay you for the cost of medical equipment you bought from the Western Medical Company. Your policy requires you to complete a form called "Predetermination of Benefits." This form should be completed before buying equipment.

Sincerely,
Sarah Burnham

Click on the better writing sample

Icons: Book, Lightbulb, Speech bubble, Checkmark, Question mark, List, Stop

If learners need help choosing the better writing sample, they click on the **Learn About** button. This sends learners to instruction. Here they are presented with a grammar or writing rule and asked to correct the writing error. Learners then have the opportunity to practice the rule in three different sentences.

After finishing instruction, learners return to the screen with two writing samples and choose the better sample. After they make their choice, the incorrect sample disappears, leaving only the better sample on the screen. If learners choose correctly, they state why they chose that writing sample.

At this point they can ask for help if they do not know the answer. If they answer correctly, learners are told to "check their work." By clicking on the **Check My Work** button, they receive a manager's report telling them how they performed on the exercise.

Learners continue until they have worked on all folders.

The following topics are covered in this unit:

- correct use of quotation marks
- run-on sentences
- sentence fragments
- correct use of the words "their," "there," and "they're"
- correct use of the words "its" and "it's"
- using the pronoun "them" correctly
- correct use of commas
- avoiding the use of jargon
- correct tense of verb to use when the subject is "each" or "everyone"
- wordy writing
- colloquial writing
- use of active rather than passive voice
- correct use of pronouns
- correct use of an adjective with the word "feel"
- capitalization
- correct use of adverb to modify an adjective
- correct use of the words "good" and "well"
- subject-verb agreement
- correct use of verbs with participles
- correct use of the words "your" and "you're"
- correct use of nominative and subjective case pronouns
- correct use of apostrophes
- correct use of the words "less" and "fewer"
- correct use of adjectives and adverbs
- correct use of the words "further" and "farther"

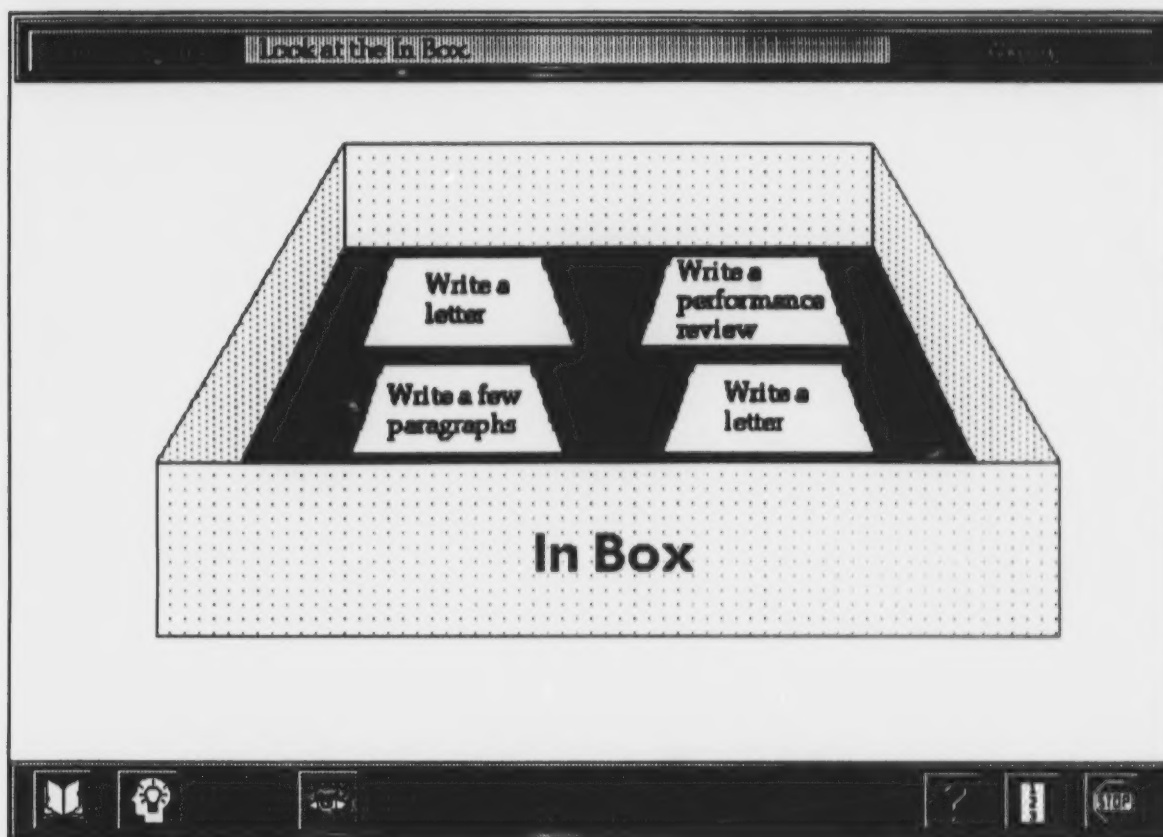
Expressing Yourself in Writing

In this unit learners have the opportunity to write.



Once again, learners find a memo on their desk. They are told to look in their In Box to find writing assignments. There are four assignments: writing two letters, writing a performance review, and writing a few paragraphs. Learners choose which writing assignment they want to do first.

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In each assignment, they are given information about what they have to write. Learners write the assignments off-line, and instructors evaluate the writing samples. This program cannot judge writing.

As before, learners can ask for help at any time by clicking on the **Learn About** button. There are three instructional strands: "Planning What You Write," "Writing a Draft," and "Editing Your Draft." Each strand takes learners step-by-step through the writing process.

Module 5: Using Manuals

In this module, learners must find information from several sources. The first is an Employee Manual. In this manual, the rules and regulations of the company are outlined. Learners must also use a Medical Dictionary to look up meanings of various medical terms. The Policy Manual explains company policies in dealing with claims. Learners must also use two simulated computer programs. They must use a program called "Policy Holders," in which all insureds are listed along with their identification numbers, addresses, and spouses' names. The program Diagnosis Codes is used to find the codes for various diagnoses.

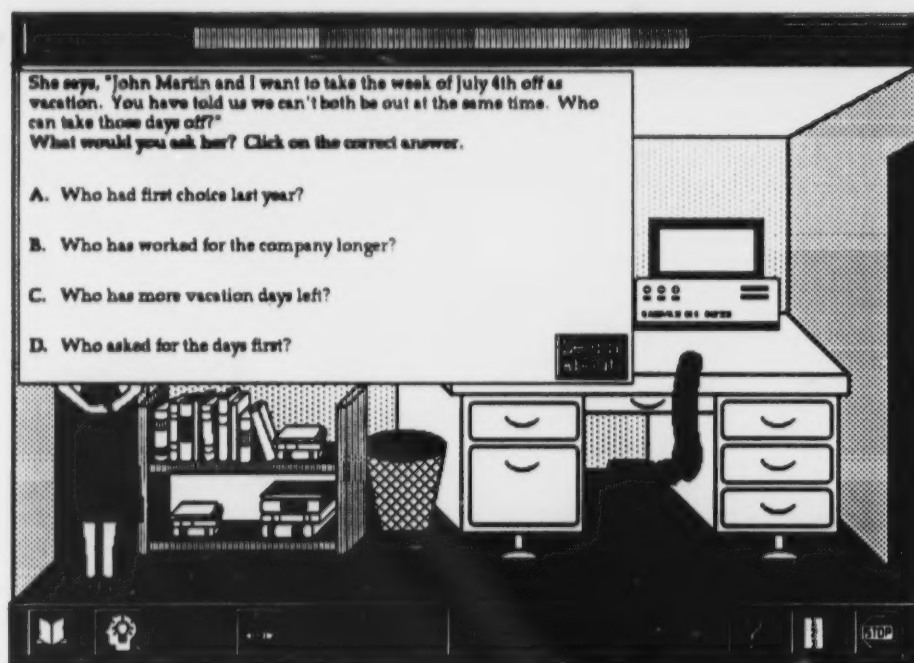
Module 5 Buttons

The buttons used in Module 5 are the same as those used in Module 3. Please refer to the section on Module 3 for more information.

Module 5 Activities

Finding Information

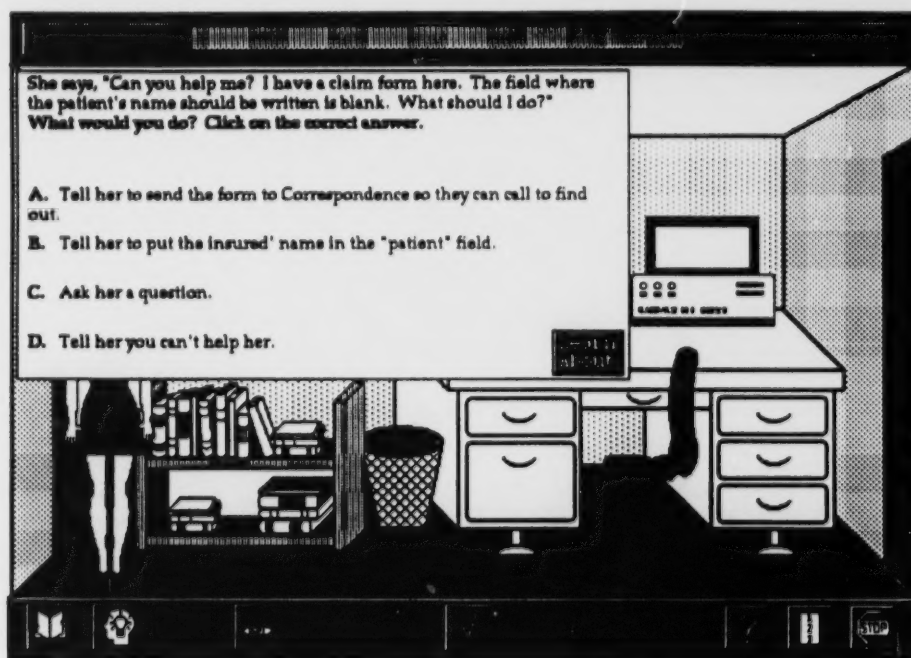
In the first unit, Finding Information, learners are asked straightforward information which can be found by reading one of the information sources.



Learners can ask for help by clicking on the **Learn About** button. This instruction tells learners what information can be found in each of the information sources and explains how to use the sources. Learners also receive practice in using the information sources.

Using the Policy Manual

The second unit, Using the Policy Manual, is less straightforward. In this unit, learners must use the Policy Manual to solve problems. Learners are presented with problems and must work through a series of questions to solve the problems.



Once again, learners can use the **Learn About** button to ask for help. The instruction for this unit shows learners how to solve problems through the development of what are called "decision diagrams." These are logical flow charts. In this way, learners can see a way to visualize how to solve problems.

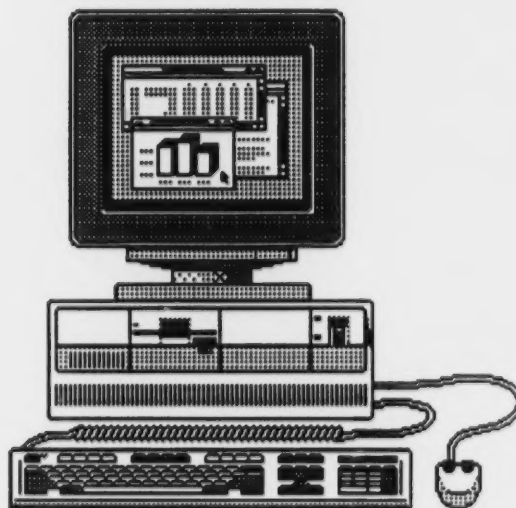
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Build Your Vocabulary

In this section, learners increase their vocabulary by using a game. They can choose the number of words they want to see (10, 20, 30, 40, or 50) and they can choose to have the game timed or untimed.

Once the game starts, a definition appears at the top of the screen and three words are under the definition. Learners must choose which of the three is the word defined. They aim a canon at the word by using the arrow keys. When the canon is under the desired word, learners fire by pressing the space bar. When they choose the correct word, learners see a positive response. If they are not correct, the correct answer appears and learners can complete two short review exercises designed to help them learn that word.

Pennsylvania Blue Shield Job Linked Skills Program Technical Manual



The contents of this courseware were developed under a grant awarded to the Pennsylvania Blue Shield from the U.S. Department of Education, National Workplace Literacy Program (Project Award Number V198A20132-92). The contents do not necessarily reflect the position or policies of the U.S. Department of Education.

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Chapter 1

IBM System Requirements

This courseware requires the following hardware components:

One of the following computers:

- IBM PC, PS/2, or 100% IBM-compatible clone
 - * 80386 or 80386SX (80486 strongly recommended)
 - * 16Mhz clock speed (20+ Mhz strongly recommended)
 - * 2 MB RAM (4 MB RAM strongly recommended)

The following graphics adapter:

- 16 color VGA or better
- a monitor (monochrome or color, color recommended)
- a hard disk drive (20 MB needed for the courseware)
 - * 30 msec. access time or less recommended
- a mouse
- one floppy drive (either 360K, 720K, or 1.44 MB)
- printer (optional, but recommended)

In order to see graphics on your computer, you must have a graphics adapter installed. In older machines, this option was installed manually. Most newer machines come with some type of graphics adapter built-in. This courseware operates in VGA mode.

A color monitor or screen is recommended. Many educational and business software programs are more aesthetically pleasing in color. Color is used in the courseware to enhance instruction.

A hard disk drive is a storage device equivalent to many floppy disks in terms of capacity. This courseware is simply too large to be used on floppy disks; you would need more than a dozen of them and would have to be switching from one floppy to another continuously. A hard disk allows you to copy all the information from the floppy disks you received with this courseware onto it. Once the information from the floppy disks is copied to the hard disk, it is easier to access and manage.

A mouse is an alternative to the keyboard. Traditionally, learners were forced to use the keyboard to interact with computer software. This was difficult for learners with little or no keyboarding skills. It also broke their concentration by forcing them to look at the

screen, hunt and peck on the keyboard, and look back at the screen. The mouse is a hand-held device that you roll around on the table. As you do, a corresponding pointer moves about on the computer screen. You roll the mouse around until the pointer is where you want it and then press a button on the mouse to perform some action. Your eyes never have to leave the screen. This courseware will not work without a mouse.

You must have at least one floppy drive for the Learner Data Disk. All learners have a Learner Data Disk upon which their records are stored.

Your computer must have 2 MB (megabytes) of RAM (Random Access Memory) installed. If it does not, the courseware will behave erratically and frequently will not work at all. Four MB of RAM is strongly recommended; this will prevent any out-of-memory conflicts.

A printer is optional, but recommended if you have any desire to print any of the learner information kept on the Learner Data Disk. A computer without a printer is like a car without tires.

Software

In addition to the software that comes with this courseware, the following software is required for successful use:

- IBM DOS 3.3 or greater

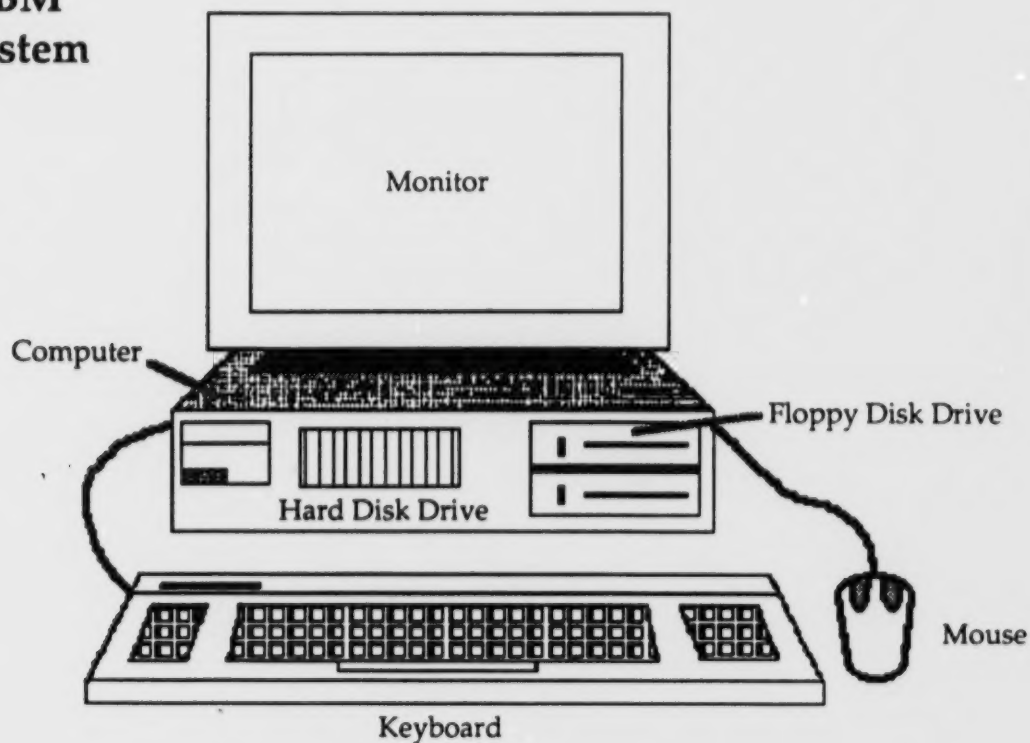
The courseware requires IBM DOS (Disk Operating System) to work. DOS is also called MS-DOS (Microsoft Disk Operating System) after the company that created and markets it. DOS is not included with the courseware; it must be purchased separately. If you do not have DOS, you must obtain it before you can do anything else. Most commercial software requires DOS to function.

Note: You should avoid DOS 4.0. DOS 4.0 has several undesirable features. DOS 5.0 is recommended.

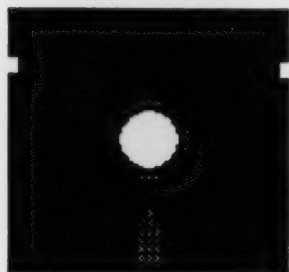
- Windows 3.1 or better

The courseware requires Windows 3.1 to run. Windows is shipped with most new computers, and is available at a reasonable cost.

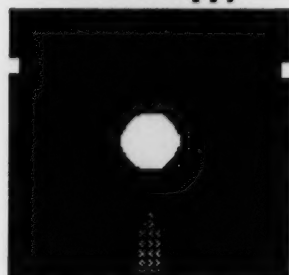
IBM System



360K Floppy



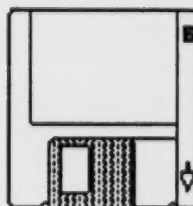
1.2 MB Floppy



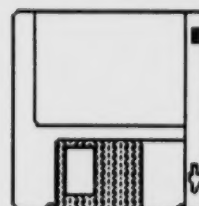
Types of Learner Data Disks

Each disk holds the same information. You will use one of these four type of disks, depending on what type of floppy drive you have.

720K Floppy



1.44 MB Floppy



Macintosh System Requirements

This courseware requires the following hardware components:

- Macintosh Plus or better
- a large screen (640 by 480 pixels or bigger) monitor
- a hard disk drive (20 MB needed for the courseware)
- a mouse
- one floppy drive (either 400K, 800K, or 1.4 MB)
- 2 MB RAM (4 MB required for System 7)
- a printer (optional, but recommended)

You must have a monitor of at least 640 by 480 pixels. You will have to attach an external monitor to the Mac Plus, Classic, SE, SE/30, and LC line. The built-in monitor is too small for these models (512 by 342 pixels for the Plus, Classic, and SE, and 512 by 384 for the older LC). A color monitor or screen is not necessary, although color is used to enhance instruction.

A hard disk drive is a storage device that has storage capacity equivalent to many floppy disks. This courseware is simply too large to use on floppy disks; you would need more than a dozen floppy disks and would have to be continuously switching from one floppy to another. A hard disk allows you to copy all the information from the courseware floppy disks onto it. Once the information from the floppy disks is copied to the hard disk, it is easier to access and manage.

A mouse is an alternative to the keyboard. Traditionally, learners were forced to use the keyboard to interact with computer software. This was difficult for learners with little or no keyboarding skills. It also broke their concentration by forcing them to look at the screen, hunt and peck on the keyboard, and look back at the screen. The mouse is a hand-held device that you roll around on the table. As you do, a corresponding pointer moves about on the computer screen. You roll the mouse around until the pointer is where you want it and then press a button on the mouse to perform some action. Your eyes never have to leave the screen. This courseware will not work without a mouse.

You must have at least one floppy drive for the Learner Data Disk. All learners have a Learner Data Disk where their records are stored.

Your computer must have 2 MB (Megabytes) of RAM (Random Access Memory) installed. If it does not, the courseware will behave erratically and frequently not work at

all. Four MB of RAM is recommended for the best performance. On machines with only 2 MB RAM, it may be necessary to remove all INIT programs. INIT programs run when your computer starts and add features (like sounds, screen savers, etc.) the Macintosh normally does not have. Some of these INITs take a great deal of RAM to run, and thus may interfere with the courseware.

A printer is optional, but recommended if you plan to print any of the learner information kept on the Learner Data Disk. Most learners will request a printout of their work. You may require printed data for your own records. A computer without a printer is like a car without tires.

Software

In addition to the software that comes with this courseware, the following software is required:

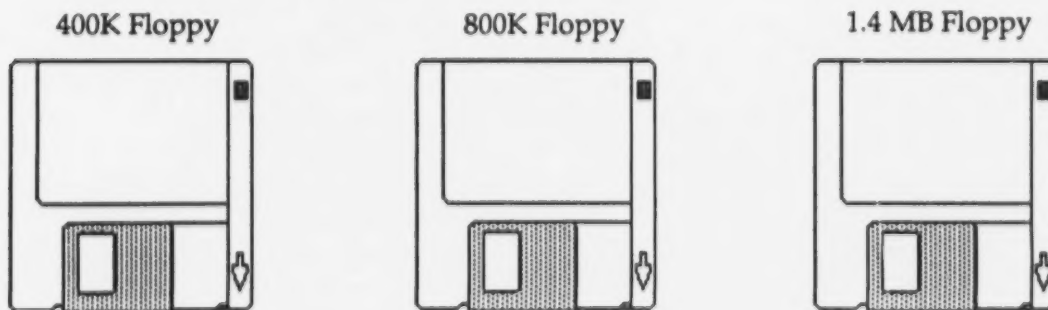
- Apple System Software 6.0.7 or better

System software comes with your computer when you purchase it. To check your computer to see which version of system software you have, select the About the Finder... choice from the Apple menu when you are at the Finder (also called Desktop) screen. You may have to update your system software to run this courseware. If so, contact your local Apple dealer for details.

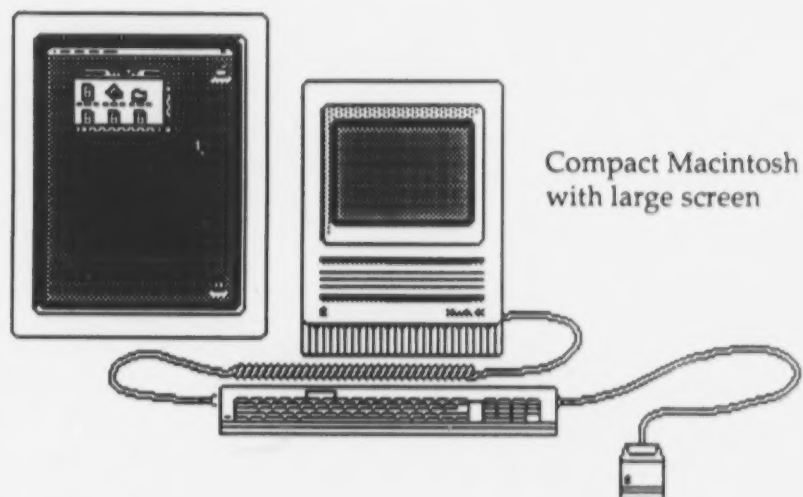
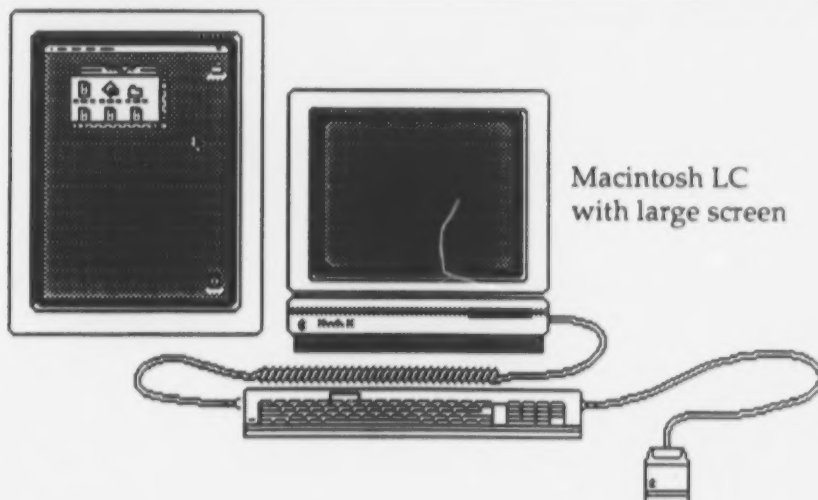
The courseware runs more smoothly on computers with faster clock speeds. (If you don't know what that is — just remember — the faster the clock speed, the better). The Mac SE/30 and Mac II line have a faster clock speed than the Mac Plus, Classic, or SE. If you have not yet purchased your equipment, keep this in mind.

Types of Learner Data Disks

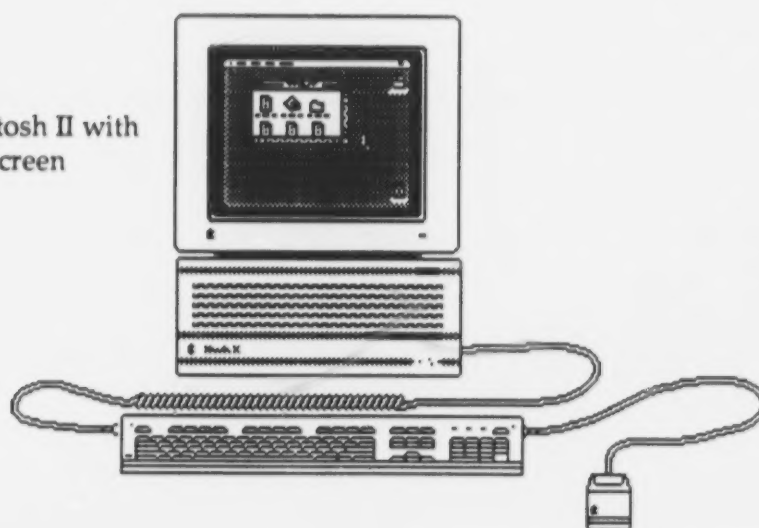
Each disk holds the same information. You will use one of these three type of disks, depending on what type of floppy drive you have.



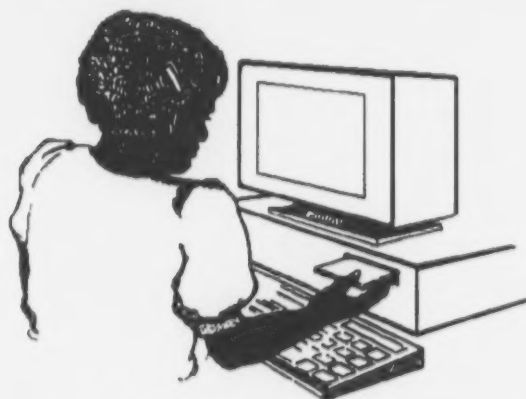
Types of Macintoshes



Macintosh II
with
large screen



Install Procedure - IBM



Some technical terms are used in this section that you might not be familiar with. If you see a term you don't understand, please consult the Computer Terms Glossary in the Appendices for a definition.

Hardware

Your computer should be up and running at this time. DOS and Windows must be installed on your hard disk. See the "System Requirements" section if you have any questions about your hardware. Please check to make sure that your hard disk and monitor are functioning correctly before you proceed. You do not need to make any special adjustments to your computer to use this courseware.

Software

The disks you received are your master set. You may wish to make a backup copy of the master set at this time. You are entitled to make one backup of this courseware for archival purposes. This is optional and the choice is yours. If you make a backup set, use it for the procedures on the following pages. Put the original master set aside in a safe place. Instructions for making backups are located in the Appendices.

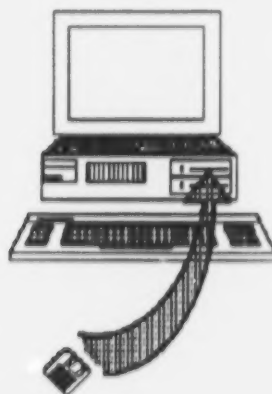
You cannot run the software directly off the floppy disks you received with this courseware. You must copy the software onto your hard disk first and then run it from the hard disk. This procedure normally can cause many problems if you lack expertise, but the provided installation program takes care of 90% of the dirty work.

The following pages will guide you through the installation process.



1. **Turn on the computer and start Windows.**

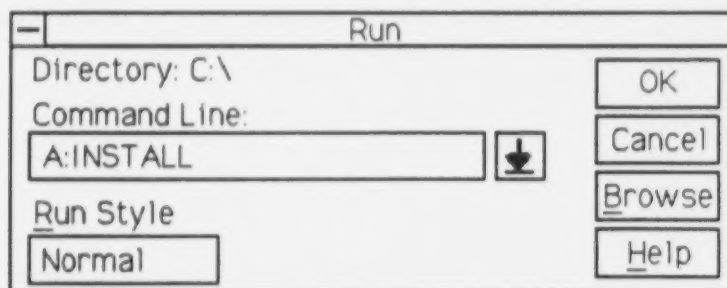
You should allow at least one minute for it to warm up and run any self-tests it does. Make sure the monitor and any self-powered disk drives are turned on as well!



2. **Insert the first disk (disk #1) into the floppy drive.**

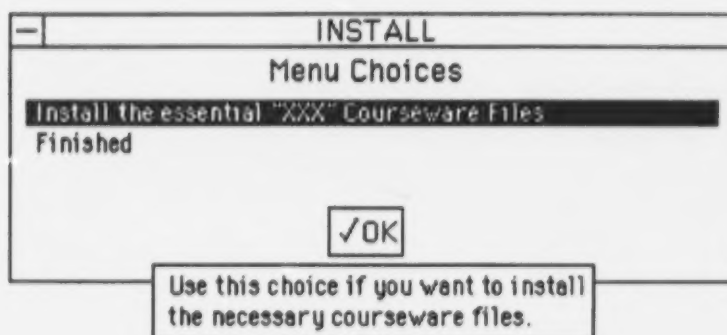
If you have more than one floppy drive, insert it in drive A:. If you don't know which drive is drive A:, consult your computer manual.

HINT: The drive that lights up or makes noise first is usually your A: drive.



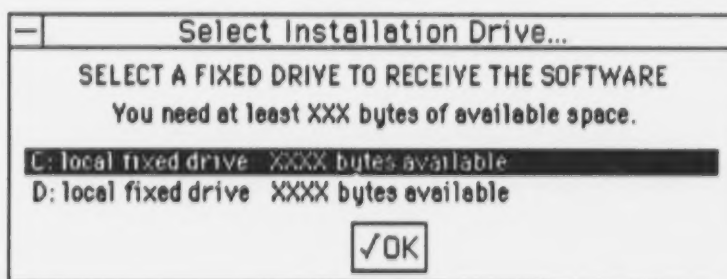
3. Select Run from the File menu in Windows, type A:INSTALL, then press Enter.

This tells Windows to run the Install program on the A: drive.

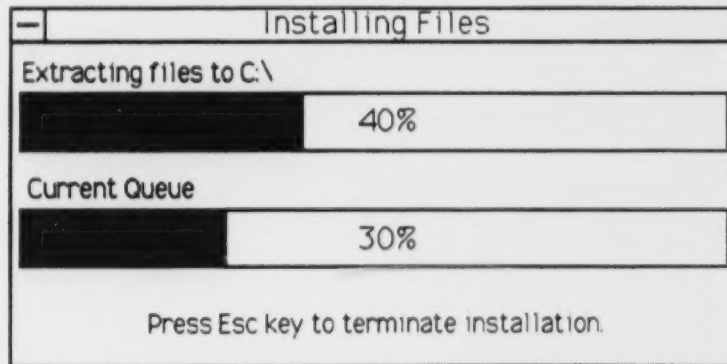


4. At this point, you may install the courseware or quit the installation process.

Use the arrow keys to move the highlighted selection to your choice, then press Enter.

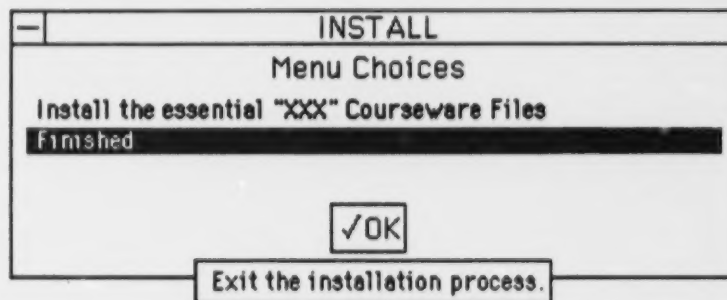


5. You must choose which hard drive (if you have more than one) to install the courseware on.



6. This dialog box shows you the progress of the installation.

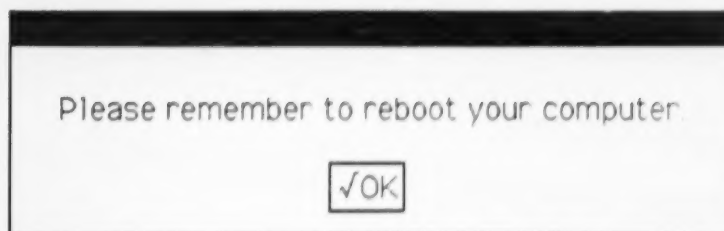
You may be prompted from time to time to remove the disk in drive A: and replace it with the next disk in the set.



7. When the installation is complete, this dialog box will reappear.

Press Enter to exit the installation process.

NOTE: Each Module is installed as a separate installation.



8. This prompt reminds you to restart your computer as soon as possible.

The installation has added several fonts and other files needed to run the software correctly. Windows will not recognize these files until you restart your computer and Windows again.

NOTE: You must restart your computer at this point for the courseware to operate correctly.

Program
Group



Courseware Name

Program Item



Start

9. A Program Group for the courseware is now on your desktop.

In this Program Group is one Program Item named START. Double-click on this Program Item to start the courseware.

Install Procedure - Mac



Some technical terms are used in this section that you might not be familiar with. If you see a term you don't understand, please consult the Computer Terms Glossary in the Appendices for a definition.

Hardware

Your computer should be up and running at this time. See the "System Requirements" section if you have any questions about your hardware. Please check to make sure that your hard disk and monitor are functioning correctly before you proceed. You do not need to make any special adjustments to your computer to use this courseware.

Software

The disks you received are your master set. You may wish to make a backup copy of the master set at this time. You are entitled to make one backup of this courseware for archival purposes. This is optional and the choice is yours. If you make a backup set, use it for the procedures on the following pages. Put the original master set aside in a safe place. Instructions for making backups are located in the Appendices.

You cannot run the software directly off the floppy disks you received with this courseware. You must copy the software onto your hard disk first and then run it from the hard disk.

Certain INITs and CDEVs (software add-ons that give your system capabilities it wouldn't normally possess) may cause problems with the install program and/or the courseware itself. INITs and CDEVs are always located within the System folder on your hard disk. You can deactivate these INITs and CDEVs temporarily by dragging them out

of the System folder onto your desktop and restarting your computer. After you install this program, you can reactivate them by dragging them back into the System folder and restarting your computer.

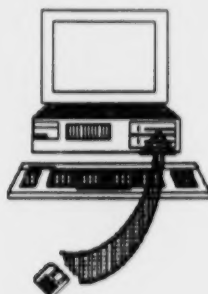
NOTE: In System 7, these files are probably located in the Extensions folder within your System folder.

INITs and CDEVs also take memory (RAM) away from the computer. If you are using a machine that has several megabytes of RAM this will not present a problem. If you are using a machine that has less than two megabytes of memory you may experience difficulties running this courseware. If this occurs, you should remove all nonessential INITs and CDEVs from your System folder.

The following pages will guide you through the installation process.

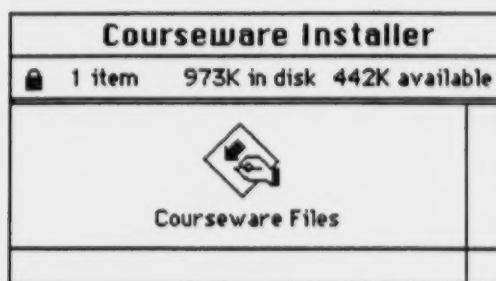


1. Turn on your computer and allow it to warm up. Also, turn on the monitor and any self-powered disk drives.



2. **Insert the first disk into the floppy drive.**

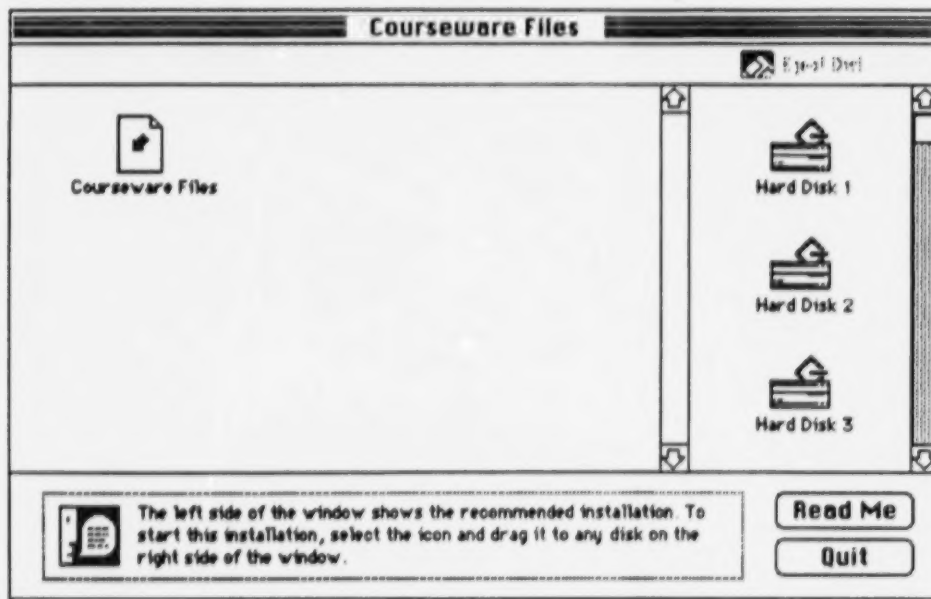
Each disk is numbered. Look for disk #1.



3. **Double-click on the courseware icon.**

Move the screen pointer on top of the courseware icon by moving the mouse about. Press and release the mouse button two times quickly.

4. **A banner screen will appear. Click the mouse to go on.**



5. When this screen appears, drag the file icon on the left to the appropriate hard drive on the right.

The installation will begin. You will be prompted for additional disks as needed. When the installation is complete, quit the program by clicking on the Quit button.

NOTE: Each Module is installed as a separate installation.

If you ever need to remove the courseware from your hard disk, drag the courseware folder into the Trash Can.

Mini-Tutorial

The mini-tutorial will walk you through this courseware.

The mini-tutorial has two purposes:

- To help you get started using the courseware. Using any software is a learning-by-doing experience.
- To introduce key concepts at strategic points. These concepts will have more relevance when they are introduced in this manner, as opposed to being presented in abstract.

You should have copied the courseware onto your hard disk before you start this tutorial. If you have not done so, please refer to the "Getting Started" section before continuing! You also must have MicroSoft® Windows™ 3.1 installed on your computer for the courseware to work if you have the PC version. On the PC, the courseware is MicroSoft Windows-based. Please consult the appropriate manuals for more Windows information.



1. Turn on the computer.

You should allow at least one minute for it to warm up and run any self-tests. Make sure the monitor is turned on as well!



2. Insert a Learner Data Disk in the floppy drive.

Learners **MUST** have their own Learner Data Disks. If you have ten learners, you need ten Learner Data Disks. You should take a Learner Data Disk you created and write the learner's name on it. (If you are using a 5.25" disk, use a felt-tip pen so you don't damage the disk!)

If you have not created a Learner Data Disk yet, please do so at this time. Instructions for doing so are located in the Appendices.

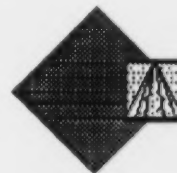
One of the most wonderful aspects of computers is their ability to keep track of bits and pieces of information. Good courseware will keep track of virtually everything your learner does. This courseware keeps records of various things the learner does on a Learner Data Disk. When learners are finished using the courseware, you can check their Learner Data Disks to see what they did. This is explained in greater detail later in this tutorial.

Program
Group



Courseware Name

Program Item



Start

3a. To start the courseware on the IBM:

- Start Windows.
- Open the courseware Group icon by double-clicking on it, then open the Start icon that appears.
- This starts the courseware. You will always start at the Main Menu of the courseware.



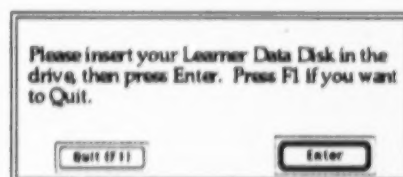
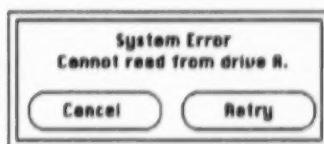
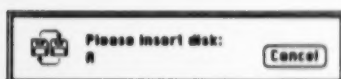
StartXX

3b. To start the courseware on the Mac:

- Open the courseware folder by double-clicking on it, then open the Start icon that appears.
- This starts the courseware. You will always start at the Main Menu of the courseware.

4. The next several screens are the introductory screens.

You need not do anything here. If you want to move quickly through the introduction, just press any key after each screen appears to go on to the next screen without any delays.

**5. One or more of these screens will appear if you do not have the Learner Data Disk in the floppy drive.**

You must put a Learner Data Disk in the floppy drive and click on the Retry button. You cannot proceed beyond this point without a Learner Data Disk.

The courseware will not function without a Learner Data Disk in the floppy drive at all times. For more information on Learner Data Disks, please see the Courseware File Information section in this manual.

A rectangular window titled "Student Sign-in Panel". Inside, the text reads: "Please type your first name, then press the Return key." followed by a horizontal input line. At the bottom, it says: "Press the delete key to fix a mistake."

NOTE: The first name and last name are typed on separate lines. Type the first name and press Enter. Type the second name and press Enter.

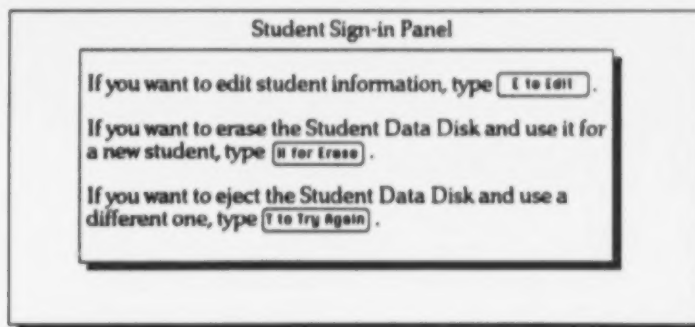
6a. This is the initial learner sign-in panel.

This panel only appears the first time a learner uses the courseware, or you choose to edit the learner name. Answer the questions, pressing the Return or Enter key after each response. Use the Delete or Backspace Key to erase a mistake.

A rectangular window titled "Student Sign-in Panel". It displays the following information: "Student name: Brett Bisdler", "Last date you used this courseware: 11/8/91", and "Is this information correct?". At the bottom, it says "Type: " followed by two buttons labeled "Y for Yes" and "N for No", separated by "or".

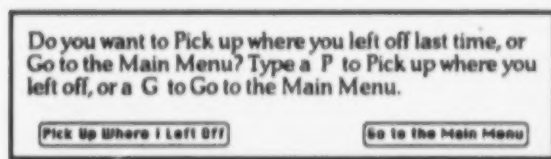
6b. This is the normal learner sign-in panel that will appear after the learner's information is entered. Type a Y if the information is right or N if it is wrong. Type E to edit the information.

This is the sign-in panel that you will most often see. It automatically appears in the learner's second and subsequent sessions with the courseware. Answer the question with a Y (for yes) or N (for no). If this is the correct Learner Data Disk, type a Y. If it is not the correct disk, type an N.



6c. This screen will appear if you type N.

You may edit the learner name if there is an error of some sort in the learner's information (this will take you to the initial learner sign-in panel), erase all information from the Learner Data Disk (useful if you want to reuse a disk), or switch Learner Data Disks (in case you put the wrong one in by accident). If you want to switch disks, you must exit the courseware and start it again.



7. This screen will not appear the first time a learner uses the courseware.

It will only appear in the second and subsequent sessions. It is included here for continuity. A decision must be made here whether to resume where you stopped at the last session, or to go to the Main Menu. Click on the button of your choice.

This feature is called a bookmark. If you are reading a book and want to put it down, you can insert a bookmark in it so when you return, you can start where you left off. This courseware has the same capability! No matter where you stop at the end of a session, you can always return to the same spot at the beginning of the next session. If a considerable amount of time has passed between sessions, you may want to take the learner to the Main Menu instead and start from there.

XXX Courseware Main Menu
Please make a choice:

Module:

- ☐ 1. How To Use This Program
- ☐ 2. Choice 2
- ☐ 3. Choice 3
- ☐ 4. Choice 4
- 5. Quit

Type the number of your choice.

8. This is the Main Menu. This graphic is only an example. Your menu will have different choices, but will work exactly the same.

Please type a 1. Do not type any other number at this time or you will become lost! You need to go through each section of Module 1. Module 1 will teach you how to use this courseware. When you have completed Module 1, you will be familiar with all the important concepts you need to know to use the courseware effectively.

Module 1: How To Use This Program Menu
Please make a choice:

- ☐ 1. Computer Use
- ☐ 2. Keyboard
- ☐ 3. Mouse
- ☐ 4. Using This Courseware
- ☐ 5. Answer Formats
- 6. Return to the Main Menu

Type the number of your choice.

Type M to go to the Main Menu.



9. This is the Module 1 Menu. This graphic is only an example. Your menu may have different choices, but will work exactly the same.

To get started, please type a 1. You will eventually return to this menu. When you do, type a 2. When you return again, type a 3, etc.

NOTE: Do not proceed beyond this point in the manual without going through Module 1 first!

- 10. Do not proceed with this step until you have gone through each menu choice in Module 1.**

Now return to the Main Menu by typing an M.

You should now have a firm grasp on how to control the courseware. One thing that was not taught in Module 1 was how to "back up" from one menu to another. At this time you need to "back up" to the Main Menu. There are two ways of doing this. The easiest way is to type an M (for menu). This will take you back to the Main Menu. The second way is to type the number of the last menu choice. Either method will back you out of one menu to the previous menu.

- 11. You are now back at the Main Menu.**

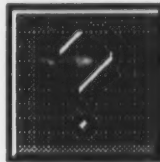
From here you may proceed with any of the sections (Modules) simply by typing the number of your choice. Each module and its menu works the same as Module 1.

Have fun with the courseware!

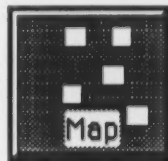
Chapter 2

Control Panel

The control panel is a set of buttons (small pictures you can click on with the mouse) that allows you to control the computer. This section will introduce you to the most common control panel buttons that appear at the bottom of the screen. If you are unsure what a button does and it does not appear here, click on the **Help** button for more information when you are running the courseware.



When learners click on the **Help** button, they receive a brief explanation of what they should do on that screen.



After clicking on the **Map** button, learners see a list of all modules they have entered. The list also tells the learner the date they used the modules and the length of time spent on each module.

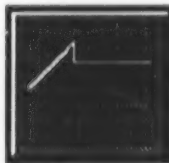


The **Exit the Program** button allows learners to quit the program at any time. After clicking on the Exit the Program button, learners see this message:

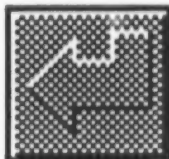
Are you sure you want to Quit?

YesNo

Learners cannot quit by mistake. When they answer No, the message disappears and learners continue with the program. When learners answer Yes, the *Pennsylvania Blue Shield Job Linked Skills Program* stops. When they return to the program, learners can go to the exact spot where they left off, if desired. This bookmarking feature means learners do not have to remember where they were when they quit.



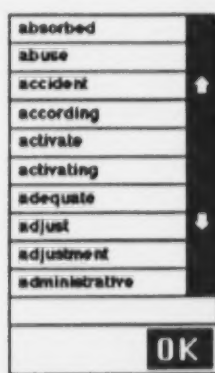
If learners want to see a screen again in a lesson, they can click on the **Previous Screen** button. This causes *Pennsylvania Blue Shield Job Linked Skills Program* to back up one screen.



If learners wish to leave a lesson and return to a scenario, they can click on the **Go Back** button. This causes the *Pennsylvania Blue Shield Job Linked Skills Program* to return to the current scenario.

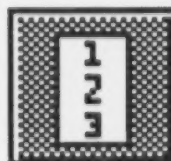


This is the **Dictionary** button. You use this button when you don't know the meaning of a word. When you click on this button, the dictionary appears as a list of words.

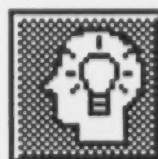


You can use the arrow buttons to move through the list to find the word you want. Use the down arrow button to scroll to the word you want, then click on the word to select it. The meaning of the word will appear. You will also see a sentence that uses the word.

If you remember how to spell the word, you could type it instead and press return or enter. Again, the meaning of the word will appear along with a sentence that uses it. To leave the dictionary, click on the OK button.

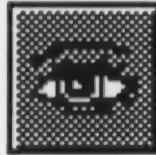


The **Menu** button takes you back to the last menu you saw.

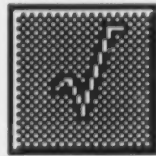


The **Learn About** button moves learners into an instructional strand. Learners can choose to see the instruction at any time. Instruction is focused directly on the current material. Learners are not required to take instruction during the module. However, if they make mistakes during the module, they will automatically proceed into instruction at the end of the module.

BEST COPY AVAILABLE



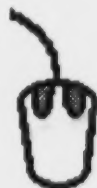
Learners click on the **Look At** button to see something up close. Learners "click on" the **Look At** button first and then click on what they want to see. The item will appear on the screen.



Learners use the **Check My Work** button when they have completed a task. Then they receive a manager's report that lists everything they did correctly and all the mistakes they made doing the task. If any mistakes are made, learners are automatically sent to the appropriate instruction.

Other buttons will appear on the control panel in different lessons and scenarios. If the meaning of a button is not clear to you, click on the **Help** button. You will receive information on these buttons, as well as any other information that will help you.

Using the Mouse



The mouse is an invaluable aid in educational software. It allows learners to focus their attention on the screen at all times, referring to the keyboard only when absolutely necessary. It also allows learners to manipulate objects on the screen to a much greater degree than the keyboard ever could. In this courseware, the mouse is used to perform the following functions:

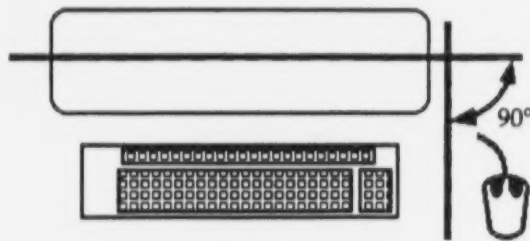
- click on buttons
- click on words and graphics
- drag an item from one place on the screen to another



Learners will often click on buttons. A button will look something like the graphic above. To use a button, move the tip of the mouse pointer on top of the button, then click the mouse button by pressing the button and releasing it in one smooth motion.

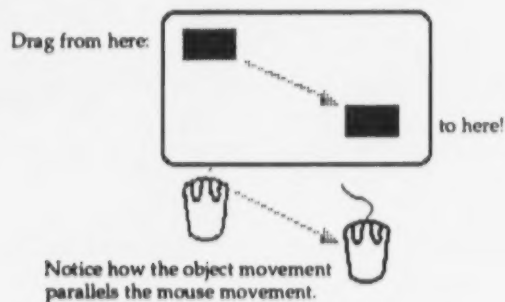


The tip of the mouse pointer is sometimes called the "hot spot" because this is the area of the pointer that must be placed on the object to click on it or drag it.



It is important to hold the mouse at right angles to the screen to ensure the mouse pointer moves correctly.

Learners will also click on words and graphics frequently. Learners will be asked to answer many questions by clicking on a word, sentence, or graphic. To do this, move the tip of the mouse pointer on top of the item, then click the mouse button by pressing the button and releasing it in one smooth motion.



Dragging an item from one place on the screen to another is yet another ability learners must master. Items may be textual or graphic in nature. To drag something, move the tip of the mouse pointer on top of the item to be moved, then press and hold the mouse button down. Without releasing the button, move (drag) the item to the desired location by moving the mouse. When the item is placed correctly, let go of the button.

Using Learner Data

Learner data is an invaluable aid when appraising learner's progress. This courseware keeps track of two different kinds of data: a map of what lessons the learner has taken and a list of tasks the learner has performed for each scenario encountered.

Learners have their own floppy disk. All the information about a learner is stored on their Learner Data Disk. The size of the disk you will work with depends on what kind of floppy disk drive you have. All the files on a Learner Data Disk are **text** files. Text files are also called **ASCII** files. Text files consist of letters, numbers, special characters (!@#"\), return characters (which drop the text down to the next line), and tab characters (which indent text). Text files are called "universal" files because virtually every word processor, spreadsheet, and data base can import information from a text file and put it to use.

MAP.TXT

The map will tell you which lessons the learner has taken. It is stored on the Learner Data Disk in the file named MAP.TXT. The map file may help you pinpoint difficulties the learner has and enable you to prescribe appropriate remedial material. For example, if a learner is taking lessons on every memo encountered, you may want to provide some extra instruction on memos. Another example: your learner is going through a great deal of math instruction. You should provide some off-line (off the computer) math instruction for that learner.

TASKS.TXT

Each scenario has a list of tasks the learner must perform in order to complete the scenario successfully. This list is like a checklist or outline. Every time the learner does a scenario, this list (and how the learner did) is saved onto the Learner Data Disk in a file named TASKS.TXT. By examining this list, you can see how well the learner performed each task. This will help you to decide in which area the learner needs further instruction.

To access this information directly from the courseware, you must be at a menu (either the Main Menu or a Module Menu). While at a menu screen, use the **Learner** pull-down menu located at the top of the screen. Move the mouse pointer on top of the **Learner** pull-down menu. Click and hold down on the mouse button. Move the mouse pointer down to your choice. A window will appear showing you the learner's information.

Here is the map window:

Courseware Map				
Mod #	Name	Unit	Time	Date
1	Intro. to Comp.	Using the Keyboard	71	11/5/91
1	Intro. to Comp.	Using the Mouse	245	11/5/91

Previous Screen Next Screen OK

Each line gives you information on one lesson the learner took. The format for each line is:

Module Number <Tab> Module Name <Tab> Module Unit <Tab> Time in Minutes Used <Tab> Date <Return>.

Only 10 lines of information will appear at a time. Use the **Next Screen** and **Previous Screen** buttons to scroll through the information. Click on the **OK** button when you are finished.

Here is the tasks window:

Tasks List
Module 4 Mini-scenarios Painting a Room 11/6/91 You correctly wrote "paint room 115" on the work sheet. You completed the Work Completion Form correctly. You did not have a paint brush. You needed it to do the task. You got the correct amount of paint.
Previous Screen Next Screen OK

Each scenario the learner does is shown as follows:

***** <Return>

Module <Return>

Module Name <Return>

Scenario <Return>

Date <Return>

List of tasks <Return>

***** <Return>

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Only 10 lines of information will appear. Use the **Next Screen** and **Previous Screen** buttons to scroll through the information. Click on the **OK** button when you are finished.

You may want to access the Map and Tasks files from outside the courseware to make, analyze, and print more concise information than is possible from within the courseware. Information on the Learner Data Disk was stored as text files to allow you to use the word processor or spreadsheet you are familiar with. The drawback to text files is that you cannot have any special formatting (underlining, centering). This means the files you work with will need some adjustments if you plan to print the data neatly.

Once you have opened a text file, your word processor or spreadsheet can do all the special formatting to the file you require. If you use a word processor to view the data, you will probably have to adjust your tab stops to line up the different columns of information. When you save the changes you have made to the file, make sure you are saving it as a normal (not a text) file. Each word processor and spreadsheet deals with text files differently; please consult the appropriate manual for more information. You should backup all the files from the Learner Data Disk and make changes to the backup. Leave the original data intact.

Appendix A

Computer Terms Glossary

ABE: 0-4th- Grade Reading Level. Majority of instruction is spent on decoding skills (includes phonics), sight word vocabularies, word attack skills, and survival reading (charts, graphs, signs, etc.).

ABE+: 4th-8th-Grade Reading Level. Instruction concentrates on increasing reading comprehension through instruction on specific reading skills (main idea, inference, details), vocabulary development, guided readings, and survival reading (graphs, charts, tables, etc.).

Alphanumeric Key: A key that, when tapped, produces a letter, punctuation, or number on the monitor screen.

Alterable Software: The software can be changed. Text can be deleted, inserted, or altered, and/or question modified, and/or proficiency level set.

Apple: Computer produced by Apple and compatibles that operate on a DOS 3.3 or ProDOS operating system (Apple GS computers are included but not Macintoshes). Generally software that runs on one Apple will run on another Apple. If using an Apple compatible, preview software on the hardware before purchase. Compatibility is not guaranteed.

Basic Math Skills: Arithmetic skills that range from single digit addition through percents, ratios, and measurements.

Application Software: Programs designed to handle specific types of information and achieve useful results or answer problems (for example, database management, word processing, spreadsheets).

ASCII: American Standard Code for Information Interchange. The standard code used to transmit information within, to, and from computers. ASCII includes letters (upper and lower case), numbers, other symbols that can be made by holding the Shift key down while pressing another key (like !, @, #), Tab characters, and Return characters.

Back-up: A copy of a program or data file made by the user onto a separate storage medium, such as a disk or hard disk, so the original can be preserved against possible loss or damage.

BASIC: Beginners All-purpose Symbolic Instruction Code. A high level language, standard on most microcomputers.

Baud: A bit of measurement used to specify the speed of data transmission in one second intervals. Usually used in reference to telecommunications.

Bit: The smallest unit of code for information occurring either as a 1, which indicates the presence of voltage, or as a 0 (zero), which indicates the absence of voltage.

Appendix A

Boot: To load a new program into RAM: may be done "warm" or "cold," meaning the computer is off.

Byte: Measurement of storage, a string of bits, generally eight, which is often used to represent a single character.

Branching: The ability of a program to alter its sequence according to user choices or responses. If the student enters a wrong answer, does the software explain why the answer is incorrect, does it offer additional examples/problems, does it reroute the student into a subsection, or does it simply tell the student that the answer is wrong?

CD-ROM: Computer Disk-Read Only Memory. A disk encased in a plastic coating which is "pitted" with electronic data and has an ultra-high density storage capacity which is read by a laser. Cannot be changed by the user.

Compatibility: Software compatibility refers to the ability to run programs on a variety of computers. Hardware compatibility means that various components may be connected directly.

Control Key: (1) a key pressed which initiates some kind of physical control action but which isn't printed on the output page, for example, line feed, tabs, paragraph indentation; (2) sometimes used in conjunction with other keys in order to define unique commands.

CPU: Central Processing Unit. The "brain" of the computer, the chip that orders information and directs it around the computer.

CRT: Cathode Ray Tube. Used for video display on a screen. See also "Monitor."

Cursor: The line, flashing box, or other blinking symbol that appears on the monitor to show where the next keystroke will appear.

Data: Information that is input to a computer system and is then processed by a mathematical and logical operation so that it can ultimately be output in a sensible form.

Database: A collection of like records of information (i.e., mailing addresses, client profiles, book listings) that can be flexibly organized, sorted, reordered or selectively retrieved.

DE: Developmental Education. Instruction designed to assist prevocational and precollege transfer students gain the necessary skills in reading, writing, and math to be successful with vocational and transfer curricula.

Desktop Publishing: The use of personal computers and application software combining text and graphics to design hard copy layout. Produces high-quality documents, such as periodicals, newsletters, and other materials.

Desktop Publishing System: A combination of hardware and software products used for desktop publishing, including a computer, layout or page-formatting software, and a high-resolution output device, such as a laser printer.

Disk: See floppy disk, hard disk, or micro-floppy disk.

Disk Drive: The piece of hardware that reads floppy disks. You insert a floppy disk into a disk drive in order to use it.

Documentation: A collection of documents or information which describes a computer program information system or required data processing operations.

DOS: Disk Operating System. A collection of programs providing the CPU with specific instruction for transferring data from the disk to the computer and from the computer to the disk. Most commonly used DOS programs are those for formatting and copying (making back-up) disks.

Electronic Mail: The transmissions, storage, and distribution of text materials in electronic form over communication networks.

File: Data arranged under a single title (such as Annual Report) in RAM or on a disk.

Floppy disk: A magnetized mylar wheel used to store data and programs outside the computer RAM. Disks measure either 5.25 inches or 3.5 inches in diameter and are sealed in a protective square cover which is lined with a software material that cleans the disk as it rotates.

Font: A group of type of one style and size.

Format: (also initialize). To prepare, via a program, a floppy disk to receive data according to the protocols of a particular DOS. No data can be written to a disk if it has not been formatted.

GED: Above 8th-Grade Reading Level. Instruction focuses on the skills needed to pass the GED (high school equivalency) exam. Instruction centers on building comprehension and increasing vocabulary, especially in topics related to social studies, science, math, and literature.

Hard disk: Used to store data and programs outside of the computer's RAM. Hard disk systems have faster read/write access times, high storage capacity, and a greater reliability than do floppy or micro-floppy disk systems.

Hardware: The physical components of a computer (i.e., keyboard, printer, disk drive, CPU, monitor).

Appendix A

High-level Language: Programming languages designed for users to write instructions in English-like statements rather than in machine language.

High Resolution: The capability of producing and reading at least 256 lines or columns of dot patterns on a CRT. High resolution graphics produce an image that has the detail approximating that of a photograph.

IBM Family: Computers that use an MS-DOS operating system. These computers include IBM, Tandy, Compaq, and a variety of compatibles. It's especially important when purchasing IBM software to preview the software on the hardware that will be used to run that program.

Initialize: See Format.

Input: Instructions or information going into the computer by keystroke, light pen, touch screen, mouse, or other device.

K: Kilobyte: 1024 bytes of memory.

Kerning: Placing letters relatively closer to or further from each other; to make certain letter combinations look better.

Laser Printer: A printer that uses a laser beam to imprint page images onto paper.

Layout: The planning, design, and arranging of text and graphics on a page.

Light Pen: A hand-held optical character recognition device used for data entry into many types of terminals.

Load: To enter a program or data file into RAM from an external source such as a disk drive.

LAN: Local Area Network: A communications network which typically uses cables to connect computers within a limited physical area such as an office building.

Leader: Regularly spaced intervals of the same character to lead the eye from left to right across the page (for example: the dots in a table of contents between the end of a title and the page number).

Leading: The extra space between lines of printed text (rhymes with heading).

Management System: The record keeping system available with the software. The system can be extensive with multiple print out options or it can be a simple record of total correct answers. Not all software contains a management system.

Memory: The amount of "storage" space in a computer. If the computer does not have enough memory, the software will not run on it.

Menu: a list of command choices in a program displayed on the monitor for the user's convenience.

Menu: A list of command choices in a program displayed on the monitor for the user's convenience.

Micro-floppy Disk: Magnetized mylar wheel used for long term storage of data and programs outside of the computer's RAM, encased in hard shells with a metal shutter to protect the media from damage due to improper handling or dust. The disks measure 3.5 or 5.25 inches in diameter.

Microprocessor: A chip, often the CPU, which is used to move data around or to perform calculations.

Modem: MODulator-DEModulator. A device which makes it possible to transfer information between computers over telephone lines.

Monitor: Also called a screen or CRT, this TV-like device is what the user views information with.

Mouse: This hand-held control device can be used as an alternative to the keyboard in some programs. When you move the mouse around on the table, a corresponding pointer on the screen moves. It is available for the Apple IIe, IIc, Apple GS, Macintosh, IBM, and others.

Optical Disc Storage: Method of storing data which can be read by a laser. There are three main categories: prerecorded disks, disks that a laser drive can write on but not erase, and erasable disks.

Objective/Competency: Stated learning outcomes.

Operating System: The program by which the CPU operates.

Printer: This device is used to produce physical, hand-held paper documents, such as letters, graphics, etc.

Program: A set of instructions written in a computer language telling the computer how to process data or interact with peripherals.

Public Domain Software: Software available for minimal or no charge. Listings of public domain software can be found by contacting local and regional user groups, in many libraries, in national exchanges, and by contacting the editor of this publication.

RAM: RAM is temporary memory in the user's workspace. This is the portion of memory where a software program's instructions (such as word processing, spreadsheets, or database) are stored. RAM also holds the information created while using a software package (for example, a letter created with a word processing program). Usually, only one software program is stored in RAM at a time. When the computer is turned on, RAM is empty and when the computer is turned off, all of the instructions and data in RAM are erased. RAM is temporary and of finite size.

READ: The CPU reads or copies information from a disk to RAM (i.e., a program or data file).

ROM: Read Only Memory. Permanent system instructions built into the computer on chips, the CPU can read the instructions in ROM, but cannot write new ones into it.

Save: A common command to the computer, directing it to store the contents of RAM on a disk or other storage device.

Scanner: A device used to scan images and translate the images into a digitized form which can then be used by computer.

Software: Computer programs, the instructions by which the machine operates, which includes both systems oriented programs (i.e., DOS) and applications programs (i.e., word processor, database).

Speech Digitizer: A device that has preprogrammed sound. It is closer to the human voice than speech synthesizers, but has a fixed vocabulary. The "Ufonic" is an example of this kind of hardware.

Speech Synthesizer: A device that can "read" any computer text aloud. Sometimes pronunciation is inaccurate or difficult to understand. The "Echo" line is an example of speech synthesizers.

Storage: The keeping of data or programs; generally storage implies keeping a file outside of RAM, as on a disk or tape for long-term storage.

Telecommunications: The transmission or reception of signals by electromagnetic means. Usually pertains to the transmission of computer signals over telephone lines.

Word Processing: Writing software that allows the computer to resemble a typewriter. Generally the more expensive the program, the greater the formatting and printing options, and the longer it takes to master the program.

Write: The CPU writes or enters information from RAM onto a storage device such as a disk.

Appendix B

Copying Courseware Disks — IBM

NOTE: If you have some sort of disk and file utilities installed on your hard drive, the following instructions may not work. Most disk and file utilities provide their own methods for formatting and copying disks. Consult the appropriate manual if this is the case.

IBM — Windows Copy Procedure

1. Open the File Manager in Windows. This program is in the Main Program Group when you first install Windows.
2. Select Copy Disk... from the Disk pull-down menu.
3. A *warning* prompt will appear. Click on Yes to continue.
4. An *insert source disk* prompt will appear. Write-protect your original disk. (See the graphics on the following page.) This will keep it from being erased accidentally. If you have a 5.25" original cover the write-protect notch with a piece of tape (see the illustration). If you have a 3.5" original, slide the write-protect tab up so you can see through the write-protect hole. Put the disk into the floppy drive.
5. A *copying disk* prompt will appear. Wait until an *insert destination disk* prompt appears. Remove the source disk. Insert the target (copy) disk in the same drive and click on OK.
6. After the copying is completed, label your freshly copied disk accurately.

IBM — DOS Copy Procedure

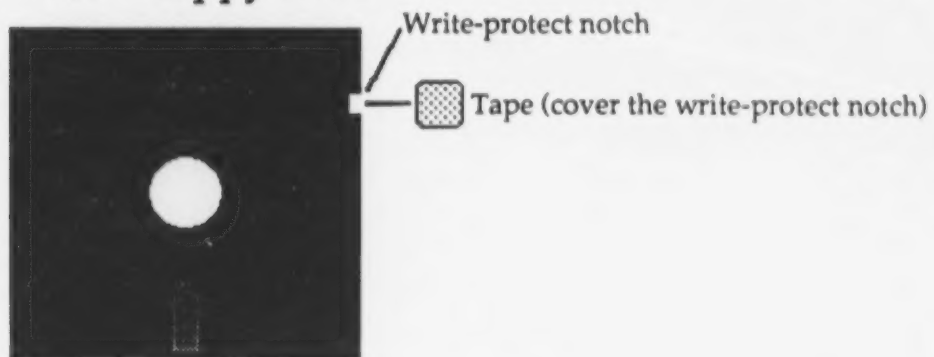
If you have one floppy drive, follow these instructions:

1. Write-protect the original disk. (See the graphics on the following page.) This will keep it from being erased accidentally. If you have a 5.25" original cover the write-protect notch with a piece of tape (see the illustration). If you have a 3.5" original, slide the write-protect tab up so you can see through the write-protect hole.
2. Insert the original disk in the floppy drive.
3. Type DISKCOPY A: <Enter>
4. The computer will prompt you to remove the original and insert the target disk. Insert the target (copy) disk in the drive and press Enter. You may have to repeat this step several times to completely copy the disk.
5. Label your freshly copied disk accurately.

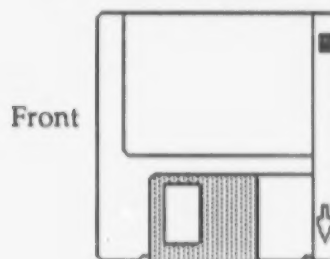
If you have two floppy drives the same size, follow these instructions:

1. Write-protect the original disk. This will keep it from being erased accidentally. If you have a 5.25" original cover the write-protect notch with a piece of tape (see the illustration). If you have a 3.5" original, slide the write-protect tab up so you can see through the write-protect hole (see the illustration).
2. Insert the original disk in floppy drive A.
3. Insert the target (copy) disk in floppy drive B.
4. Type DISKCOPY A: B: <Enter>
5. After the copying is completed, label your freshly copied disk accurately.

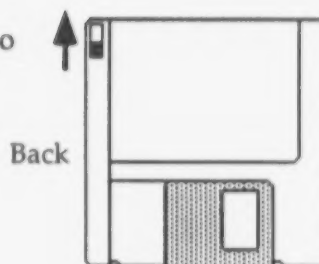
5.25" Floppy Disk



3.5" Floppy Disk



Slide write-protect tab up so
you can see through hole.

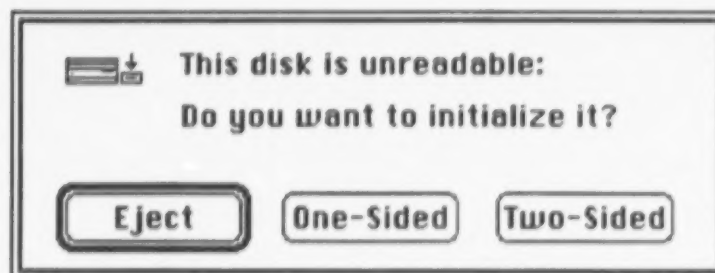


Copying Courseware Disks — Mac

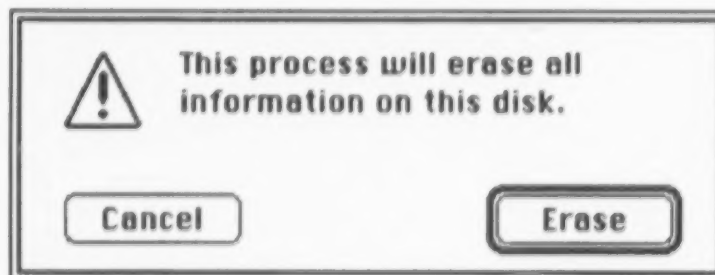
NOTE: If you have some sort of disk and file utilities installed on your hard drive, the following instructions may not work. Most disk and file utilities provide their own methods for formatting and copying disks. Consult the appropriate manual if this is the case.

Formatting Floppy Disks

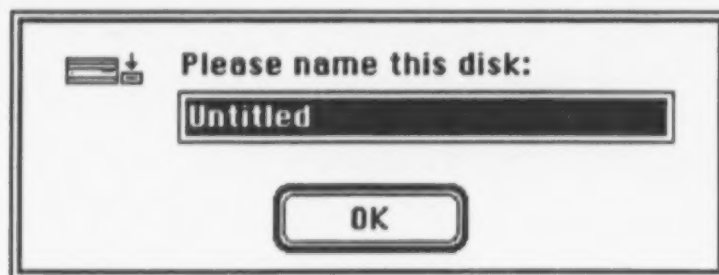
You must format (initialize) a floppy disk before you can copy any information onto it. Formatting a disk prepares it for use. New Student Data Disks can be made by formatting a blank disk. To format a blank disk, insert it in the floppy drive. A dialog box similar to this will appear:



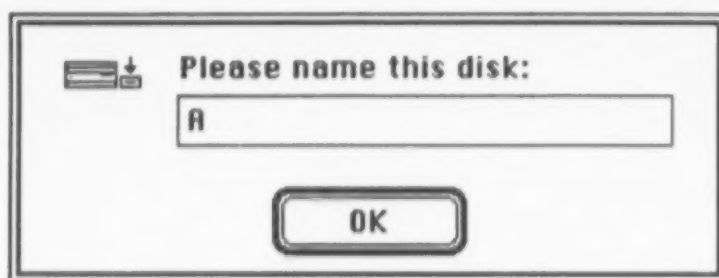
Click on the Two-Sided button. This dialog box will appear:



Click on the Erase button to initialize the disk. This dialog box will appear:



Type a name for the disk (remember, Student Data Disks must be named A). The dialog box should look like this:



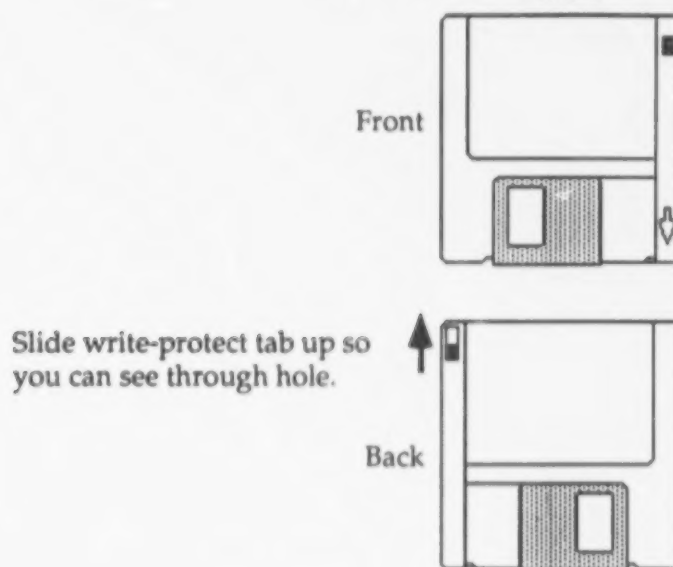
Click on the **OK** button. After about a minute, the disk will be initialized and ready to use.

Copying Floppy Disks — Mac

If you have one floppy drive, follow these instructions:

1. Write-protect the original (source) disk. This will keep it from being erased accidentally. If you have a 3.5" original, slide the write-protect tab up so you can see through the write-protect hole (see the illustration below).

3.5" Floppy Disk



2. Insert the target disk in the floppy drive. (Initialize it if needed.)
3. Eject the disk by choosing Eject from the File menu.
4. Insert the source disk into the floppy drive. Drag the source disk onto the target disk. You will see a prompt asking you if it is OK to copy. Click on the **OK** button. You may have to "swap" disks several times to completely copy the disk.
5. Label your freshly copied disk accurately.

If you have two floppy drives the same size, follow these instructions:

1. Write-protect the original disk. This will keep it from being erased accidentally. If you have a 3.5" original, slide the write-protect tab up so you can see through the write-protect hole (see the illustration above).
2. Insert the source disk in the first floppy drive.
3. Insert the target (copy) disk in the second floppy drive.
4. Drag the source disk onto the target disk. You will see a prompt asking you if it is OK to copy. Click on the **OK** button.
5. After the copying is completed, label your freshly copied disk accurately.

Appendix C

ISAL COMPUTER BUG REPORT

DIRECTIONS: If you have a problem with the software, please copy this sheet, complete the copy, and send it to us immediately. We will attempt to solve your problem as quickly as possible.

Date: _____

Name: _____

Address: _____

City: _____

State: _____

Zip Code: _____

Telephone Number: _____

E-mail Address: _____

Software Name: _____

Version #: _____

Machine:

Name/Type: _____

ROM (type and version): _____

Amount of RAM (memory): _____

Hard Disk(s) Size/Type: _____

Floppy Disk(s) Size/Type: _____

Printer(s) Name/Type (serial, parallel): _____

Monitor (CGA, EGA, VGA) (Radius, Apple, etc.): _____

DOS Version (for IBM): _____

System, Finder, Imagewriter, LaserWriter version (for Macintosh): _____

RAM Disk Size: _____

Cache Size: _____

Cards Installed & Slots Used: _____

AUTOEXEC.BAT File Printout (for IBM)¹: _____

CONFIG.SYS File Printout (for IBM)¹: _____

Appendix C

Problem:

Is the problem reproducible? (If Yes give approximate percentage): _____

What text/graphics appeared on the screen (if any): _____

(Note: Try pressing Control-N. If a screen number appears in the upper right corner of the screen, write down the information it contains here. Press Control-N again to hide this display.)

Steps needed to reproduce this bug: _____

Supporting information (printouts, screen dumps, etc.):

Other comments: _____

Send to: Software Bug Report
Institute for the Study of Adult Literacy
204 Calder Way, Suite 209
University Park, PA 16801-4756

1: You can obtain a printout of this file by turning your printer on and typing PRINT FILENAME.FILETYPE at the DOS C:\ prompt and pressing the Enter key. (Example: PRINT AUTOEXEC.BAT). If you do not have a printer, you can list the file on the screen and copy it with pencil and paper by typing TYPE FILENAME.FILETYPE at the DOS C:\ prompt and pressing the Enter key (Example: TYPE AUTOEXEC.BAT).